

PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitutional form 1449 A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Application Number : 10/008,265

Filing Date: 11/05/2001

First Named Inventor: Beams

Group Art Unit: 2176

Examiner Name: n/a

Attorney Docket Number: 05222.00181

U.S. PATENT DOCUMENTS					
Examiner Initials *	Cite No. <sup>1</sup>	Document Number Number - Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
✓ WAF		US-4,622,013	11/11/1986	Cherchio	
✓		US- 4,874,784	10/17/1989	Clancey	
✓		US- 4,981,766	01/02/1990	Derr, et al.	
✓		US- 4,931,950	06/05/1990	Isle, et al.	
✓		US- 4,984,077	10/16/1990	Eisen, et al.	
✓		US- 4,977,529	12/11/1990	Gregg, et al.	
✓		US- 5,002,491	03/26/1991	Abrahamson, et al.	
✓		US- 5,170,464	12/08/1992	Hayes, et al.	
✓		US- 5,189,402	02/23/1993	Naimark, et al.	
✓		US- 5,208,745	05/04/1993	Quentin, et al.	
✓		US- 5,208,898	05/04/1993	Funabashi, et al.	
✓		US- 5,239,617	08/24/1993	Gardner, et al.	
✓		US- 5,259,766	11/09/1993	Sack et al.	
✓		US- 5,267,865	12/07/1993	Lee, et al.	
✓		US- 5,310,349	05/10/1994	Daniels, et al.	
✓		US- 5,311,422	05/10/1994	Loftin, et al.	
✓		US- 5,317,688	05/31/1994	Watson, et al.	
✓		US- 5,326,270	07/05/1994	Ostby, et al.	
✓		US- 5,359,701	10/25/1994	Chiang, et al.	
✓		US- 5,372,507	12/13/1994	Goleh	

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FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
✓ WAF		EP 0 689 132 A2	12/27/95	Laffra	
✓		EP 0 710 942 A2	05/08/96	Siefert	
✓		EP 0 710 942 A2	05/08/96	Siefert	
✓		EP 0 798 655 A2	10/01/97	Jervis, et al.	
✓		WO 00/04478	01/27/00	Jonsson	
✓		WO 97/44766	11/27/97	Cook	
✓		WO 98/03953	01/29/98	Simmons	
✓		WO 98/25251	06/11/98	Ho	
✓		WO 98/32109	07/23/98	De Lange	

Examiner Signature	Caren Jan L.	Date Considered	9/9/04
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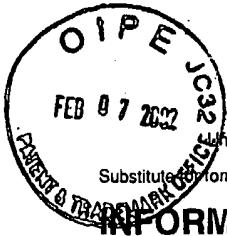
OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		"Evaluating the Effectiveness of Feedback in SQL-Editor", IEEE, proc. Int. workshop IWAT, pp 143-144	
atle		"Automated Exercise Progression in Simulation-Based Training," IEEE Trans. On Systems, Man, and Cybernetics, Vol. 24(6), pp. 863-74, June 1994	
↑		"ACM Transactions on Information Systems," 1988 at <a href="http://www.acm.org/pubs/loc/Abstracts/lois/59298.html">www.acm.org/pubs/loc/Abstracts/lois/59298.html</a>	
		The Virtual Classroom: Great Expectations. Delivering Graduate Education by Computer: A Success Story, 1996.	
		"A Special Section -- Goal Based Scenarios: A New Approach to Professional Education: Reengineering Education at Andersen Consulting," Educational Technology, Nov.-Dec. 1994	
↓		"Goal-Based Scenarios and the Problem of Situated Learning: A Commentary on Andersen Consulting's Design of Goal-Based Scenarios," Educational Technology, Nov.-Dec. 1994	
atle		"DDD--A Free Graphical Front-End for UNIX Debuggers," Jan. 1996, ACM Sigplan Notices, Vol. 31, No. 1, pp. 22-27	
		"Automated Training of Legal Reasoning" at <a href="http://www.bileta.ac.uk/94papers/muntjew.html">http://www.bileta.ac.uk/94papers/muntjew.html</a>	
atle		"The Virtual Learning Environment System," 28th Annual Frontiers in Education Conference, Conference Proceedings, Vol. 2, Nov. 4-7, 1998	
atle		"Developing a Design System into an Intelligent Tutoring System," Int'l J. Engr. Ed., Vol. 13(5), pp. 341-46, Dec. 1997	
		"CAPTOR-a model for delivering web-based intelligent tutoring system technology", IEEE Proc. DASC vol. 2, pp. 5.C.4.1-5	

Examiner Signature	<i>Alex Jan L</i>	Date Considered	3/9/02
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		Number - Kind Code <sup>2</sup> (if known)			
GATL		US- 5,395,243	03/07/1995	Lutbin, et al.	
	↑	US- 5,441,415	08/15/1995	Lee, et al.	
		US- 5,491,743	02/13/1996	Shilo, et al.	
		US- 5,533,903	07/09/1996	Kennedy	
		US- 5,535,422	07/09/1996	Chang, et al.	
		US- 5,537,141	07/16/1996	Harper, et al.	
		US- 5,539,869	07/23/1996	Spoto, et al.	
		US- 5,566,291	10/15/1996	Boulton, et al.	
		US- 5,576,844	11/19/1996	Anderson, et al.	
		US- 5,577,186	11/19/1996	Mann II, et al.	
		US- 5,597,312	01/28/1997	Bloom, et al.	
		US- 5,616,033	04/01/1997	Kerwin	
		US- 5,644,686	07/01/1997	Hekmatpour	
		US- 5,644,727	07/01/1997	Atkins	
		US- 5,673,369	09/30/1997	Kim	
		US- 5,690,496	11/25/1997	Kennedy	
		US- 5,696,885	12/09/1997	Hekmatpour	
		US- 5,701,400	12/23/1997	Amado	
		US- 5,720,007	02/17/1998	Hekmatpour	
		US- 5,727,161	03/10/1998	Purcell, Jr.	

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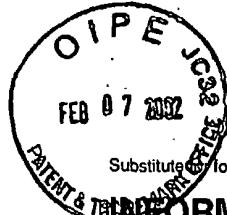
Examiner Signature	<u>Alex-Jai S.</u>	Date Considered	9/9/04
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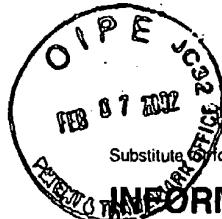
OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
cute		"Bridging the Virtual and the Physical: The InterSim as a Collaborative Support Interface," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 556-58, Dec. 1997	
wte		"Task-Oriented Learning on the Web"; Innovations in Education and Training International, Vol. 36, No. 1, Feb. 1999	
		"Applications of BrainMaker Neural-Network to stocks, business, medical, manufacturing" at <a href="http://www.calsci.com/Applications.html">www.calsci.com/Applications.html</a>	
		"KBLPS Overview" at <a href="http://www.cgi.com/CGIWEB/KBLPS/overindex4.html">www.cgi.com/CGIWEB/KBLPS/overindex4.html</a>	
		"Smartlaw-adapting-classic-expert-system-techniques-for-the-legal-research-domain", ACM pp.133-141	
cute		"Interactive Multimedia Instructs the Individual," Oct. 1994, Occupational Health & Safety Vol. 63, No. 10, pp. 144-145	
		"Practical methods for automatically generating typed-links", ACM Hypertext pp.31-41	
wte		"Popular Theory Supporting the Use of Computer Simulation for Experiential Learning," <a href="http://www.centurionsys.com/rtcl57.html">http://www.centurionsys.com/rtcl57.html</a> , Aug. 1997	
		"Technical Report: Computer Aided Education and Training Initiative" at <a href="http://adlearn.lrdc.pitt.edu/adlearn/papers/FINALREP.htm">http://adlearn.lrdc.pitt.edu/adlearn/papers/FINALREP.htm</a>	
cute		"FRA: Teaching Financial Accounting with a Goal-Based Scenario," Intelligent Systems in Accounting, Finance and Management, Vol. 4, 1995	
		"Teaching Real-World Analysis Skills for Goal-Based Scenario," pp. 68-74	

Examiner Signature	<i>Wen-Jan P.</i>	Date Considered	9/9/02
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## **INFORMATION**

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Sheet \_\_\_\_\_ of \_\_\_\_\_

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		Number - Kind Code <sup>2</sup> (if known)			
WHT		US-5,727,950	03/17/1998	Cook, et al.	
↑		US-5,745,652	04/28/1998	Bigus	
		US-5,772,446	06/30/1998	Rosen	
		US-5,779,468	07/14/1998	Ho, et al.	
		US-5,788,508	08/04/1998	Lee, et al.	
		US-5,791,907	08/11/1998	Ramshaw, et al.	
		US-5,799,151	08/25/1998	Hoffer	
		US-5,799,292	08/25/1998	Hekmatpour	
		US-5,806,056	09/08/1998	Hekmatpour	
		US-5,810,747	09/22/1998	Brudney, et al.	
		US-5,822,745	10/13/1998	Hekmatpour	
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		US-5,823,788	10/20/1998	Lemelson, et al.	
		US-5,835,683	11/10/1998	Corella, et al.	
		US-5,868,575	02/09/1999	Kuczewski	
		US-5,870,768	02/09/1999	Hekmatpour	
		US-5,875,437	02/23/1999	Atkins	
↓		US-5,889,845	03/30/1999	Staples, et al.	
		US-5,893,123	04/06/1999	Tuinenga	
WHT		US-5,911,581	06/15/1999	Knight Jeremy, et al.	

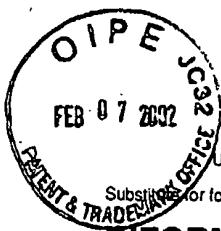
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		"Artificial Intelligence and Mathematics Education" at <a href="http://www.rand.org/hot/mcarthur/Papers/aied.html">http://www.rand.org/hot/mcarthur/Papers/aied.html</a>	
		"The Roles of Artificial Intelligence in Education...Current Progress and Future Prospects" at <a href="http://www.nib.unilcamp.br/recursos...education/intelligent/tutoring.html">http://www.nib.unilcamp.br/recursos...education/intelligent/tutoring.html</a>	
		"WITS: A Reusable Architecture for a VR-Based ITS" at <a href="http://advteam.irdc.pitt.edu/its-arch/papers/itm.html">http://advteam.irdc.pitt.edu/its-arch/papers/itm.html</a>	
		"Brainmaker" at <a href="http://www.npiac.on.ca/~echoscan/28-04.htm">www.npiac.on.ca/~echoscan/28-04.htm</a>	
		"News-for-ESAP" at <a href="http://www.hops.wharton.upenn.edu/~esap/news.html">www.hops.wharton.upenn.edu/~esap/news.html</a>	
u/wf		"Learning with Computers," May 1994, Accountancy Vol. 113, No. 1209, pp. 60-64	
le/AR		"User-Sensitive Multimedia Presentation System," March 1, 1996, Vol. 39, No. 3, pp. 93-94	
et			
u/wf		"Microworlds and Simuworlods: Practice Fields for the Learning Organization," Spring 1996, Organizational Dynamics Vol. 24, No. 4, pp. 36-49	
u/wf		"What are Intelligent Coaching Systems and Why are they (In)evitable?" IEEE Colloquium on Artificial Intelligence in Educational Software, pp. 2/1-2/5, June 1998	
u/wf		"Development of an Integrated Simulator and Real Time Plant Information System," Advances in Operational Safety of Nuclear Power Plants, Proceedings of an International Symposium 1996.	

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		US-6,003,021	12/14/1999	Zadik, et al.	
		US-6,015,348	01/8/2000	Lambright, et al.	
		US-6,016,486	01/18/2000	Nichols	
		US-6,018,730	01/25/2000	Nichols, et al.	
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		US-6,018,732	01/25/2000	Bertrand, et al.	
		US-6,023,691	02/08/2000	Bertrand et al.	
		US-6,023,692	02/08/2000	Nichols	
		US-6,026,386	02/15/2000	Lannert, et al.	
		US-6,029,156	02/22/2000	Lannert, et al.	
		US-6,029,158	02/22/2000	Bertrand, et al.	
		US-6,029,159	02/22/2000	Zorba, et al.	
		US-6,032,141	02/29/2000	O'Connor, et al.	
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		US-6,073,127	06/06/2000	Lannert, et al.	
CSAP		US-6,085,184	07/04/2000	Bertrand, et al.	

Examiner Signature	(John J. Gaffey)	Date Considered	9/9/04
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<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).<sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.<sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.<sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Application Number : 10/008,265

Filing Date: 11/05/2001

First Named Inventor: Beams

Group Art Unit: 2176

Examiner Name: n/a

Attorney Docket Number: 05222.00181

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Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
ATL		"A Goal-Centered Architecture for Intelligent Tutoring Systems," Proc. Of 7th World Conf. On Artificial Intelligence in Education, pp. 307-314, Aug. 1995		
		"Smart Avatars in JackMOO," Proceedings of the 1999 IEEE Conference on Virtual Reality, pp. 156-63		
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✓		"Pedagogical, natural language and knowledge engineering techniques in SOPHIE I, II, and III," in Intelligent Tutoring Systems, D. Sleeman & J.S. Brown eds., pp. 227-82, Dec. 1982		
intk		Interactive Multimedia Distance Learning (IMDL): The Prototype of the Virtual Classroom, 1994.		
ATL		"Understanding Organizational Dynamics of IT-Enabled Change: A Multipedia Simulation Approach," Winter 1997/1998, Journal of Management Information Systems: JMIS, Vol. 14, No. 3, pp. 109-140.		
intk		"Intelligent Computer-Aided Instruction: A Survey Organized Around System Components," Jan. 1989, IEEE Inc., New York, Vol. 49, No. 1, pp. 40-57.		

Examiner Signature	Wen Jan L	Date Considered	9/9/04
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Sheet \_\_\_\_\_ of \_\_\_\_\_

Application Number : 10/008,265

Filing Date: 11/05/2001

First Named Inventor: Beams

Group Art Unit: 2176

Examiner Name: n/a

Attorney Docket Number: 05222.00181

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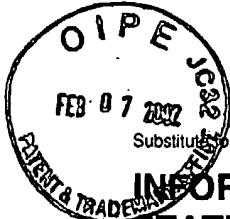
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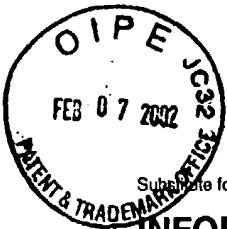
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
atf		"Conducting and Supporting a Goal-Based Scenario Learning Environment," Educational Technology, Nov.-Dec. 1994	
		"Interface design issue for advising giving expert systems", Comm. Of the ACM, vol.30, no. 1, pp14-31	
cwr		"An Object-Oriented Architecture for Evolutional Development of Interactive Learning Environment with Coached Problem-Solving," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 592-94, Dec. 1997	
↑		"Architecture of an Intelligent Tutoring System on the WWW," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 39-46 Dec. 1997	
		"Socialized Collaborative Learning in Multimedia Virtual Worlds" URL: <a href="http://www.iscs.nus.edu.sg/labs/learning/tels/VRML.html">http://www.iscs.nus.edu.sg/labs/learning/tels/VRML.html</a> ; viewed Feb. 16, 1999	
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atf		"Virtual Learning: A Revolutionary Approach to Building a Highly Skilled Workforce," Autumn 1998, Personnel Psychology Vol. 51, No. 3, pp. 767-71	
		"Intelligent Tutoring Systems: An Overview" at <a href="http://www.intellectbooks.com/authors/lawler/its.htm">http://www.intellectbooks.com/authors/lawler/its.htm</a>	

Examiner Signature	<i>Alen Jan R.</i>	Date Considered	8/19/02
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Filing Date : 11/05/2001

First Named Inventor: Beams

Group Art Unit: 2176

Examiner Name: n/a

Attorney Docket Number: 05222.00181

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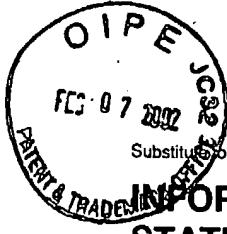
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wal		"No More Boring CPE," July 1997, Accounting Technology, pp. 27-35	
cwl		Computer Dictionary, 1997, pp. 264, 276, 383, 446, 462, 507.	
		"Rule-Based Programming with OPS5" at <a href="http://www.mkp.com/books_catalog/0-934613-51-6.asp">www.mkp.com/books_catalog/0-934613-51-6.asp</a>	
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		"MUSER U.S. Patents" at <a href="http://www.muser.com/html/patents.html">www.muser.com/html/patents.html</a>	
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		"Simulation Technology and Parallelism in Learning Environments" at <a href="http://www.cs.utwente.nl/pj/min/Book/chapter1.htm">http://www.cs.utwente.nl/pj/min/Book/chapter1.htm</a>	

Examiner Signature	<i>Wen-Ja Li</i>	Date Considered	3/19/02
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STATEMENT BY APPLICANT**

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Sheet \_\_\_\_\_ of \_\_\_\_\_

Application Number : 10/008,265

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First Named Inventor: Beams

Group Art Unit: 2176

Examiner Name: n/a

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cute		"Engines for Education" URL: <a href="http://www.ils.nwu.edu/~e_for_e/nodes/I-M-INTRO-ZOOMER-pg.html">http://www.ils.nwu.edu/~e_for_e/nodes/I-M-INTRO-ZOOMER-pg.html</a> ; viewed Feb. 15, 1999.	
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cute		"Teaching with the internet" 1998, JAI Press Inc., USA. Vol no. 3, pp 217-222	
cute		"Development of a Simulation-Based Intelligent Tutoring System for Assisting PID Control Learning," Jan. 1994, IEICE Transactions on Information and Systems, E77-D, No. 1, Tokyo Japan, pp. 108-17.	
		"Authoring Intelligent Tutoring Systems: An Analysis of the State of the Art" at <a href="http://www.cs.umass.edu/~tmurray/papers/ATSummary/AuthTools.html">http://www.cs.umass.edu/~tmurray/papers/ATSummary/AuthTools.html</a>	
cute		Multimedia Training "Get Lemonade, Not a Lemon!" June 1997, Journal for Quality and Participation vol. 20, No. 3, pp. 22-28	
		"SMART Evaluation: Cognitive Diagnosis, Mastery Learning & Remediation," Proc. Of 7th World Conf. On Artificial Intelligence in Education, pp. 123-30, Aug. 1995	
		"Decision Pro3.0" at <a href="http://www.vanguardsw.com/">www.vanguardsw.com/</a>	

Examiner Signature	Alex - Jan L.	Date Considered	9/9/04
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(Use as many sheets as necessary)

Sheet \_\_\_\_\_ of \_\_\_\_\_

Application Number : 10/008,265

Filing Date : 11/05/2001  
First Named Inventor: Beams  
Group Art Unit: 2176  
Examiner Name: n/a  
Attorney Docket Number: 05222.00181

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### OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

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WTF		"A Fuzzy Logic-Based Intelligent Tutoring System," Information Processing 92, Vol. II, pp. 66-72, Dec. 1992.	
WTF		"The SimQuest Authoring System for Simulation-Based Discovery Learning," Proc. Of 1997 World Conf. On Artificial Intelligence in Education, pp. 79-86, Dec. 1997	
WTF		"A Browser-Based System to Support & Deliver DE," 28th Annual Frontiers in Education Conference, Conference Proceedings, Vol. 1, Nov. 4-7, 1998	
WTF		"Goal-Based Scenarios and Business Training: A Conversation with Roger C. Schank," Educational Technology, Nov.-Dec. 1994	
		"Automate Your Business Plan" at <a href="http://www.business-plan.com/screen2.html">www.business-plan.com/screen2.html</a>	
		"Kiplinger TaxCut Press Releases" at <a href="http://www.taxcut.com/taxcut/98press_releases/pr98_nowshipping.html">http://www.taxcut.com/taxcut/98press_releases/pr98_nowshipping.html</a>	
		"TurboFax Deluxe Product Information" at <a href="http://www:intuit.com/turbotax/prodinfo/ttdlx.html">http://www:intuit.com/turbotax/prodinfo/ttdlx.html</a>	
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WTF		"Template Software Workflow Simulator, Chapter 8, June 1998	
WTF		"Goal-Based Scenarios", Technical Report # 36, Northwestern University, The Institute for the Learning Sciences, December 1992, pp. 1-30	

Examiner Signature	<i>Alex Jan</i>	Date Considered	9/9/04
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Group Art Unit: 2176

Examiner Name: n/a

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